

User manual **GASTROLINE**

1. UNLOADING

The device should be transported in vertical position, and it should be properly secured and packed. The manufacturer ships the device on a special wooden platform, secured with cardboard angle sections and foil.

2. PROPERTIES OF THE DEVICE

2.1. Purpose

"Gastroline" display cabinet is a universal cooling device aimed for storing and displaying f. ex. fruit and vegetable salads, previously cooled to storing temperature. Salad display cabinet can be used in restaurants, canteens, etc. After fixing guide bars it may constitute an element of serving sequence. Guaranteed temperature inside the display cabinet equals +2°C/+8°C with ambient temperature of +15°C/+25°C and relative air humidity of up to 60%.

2.2. Description of the device

"Gastroline" is a cooling display cabinet with internal aggregate and forced air circulation. The display cabinet is equipped with automatic defrosting and automatic condensate evaporation. "Gastroline" is furnished with electronic thermostat cooperating with temperature recording module enabling to record and signal too low and too high temperature within the device. The cabinet is divided into two parts: display part, adjusted to GN containers and storage container with regulated shelf. Depending on the construction and purpose of "Gastroline" devices, they are manufactured in stationary or moving version. Our devices are made according to modern technologies and have all certificates required by law.

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This sign signifies information of particular meaning for user security and for proper device exploitation.

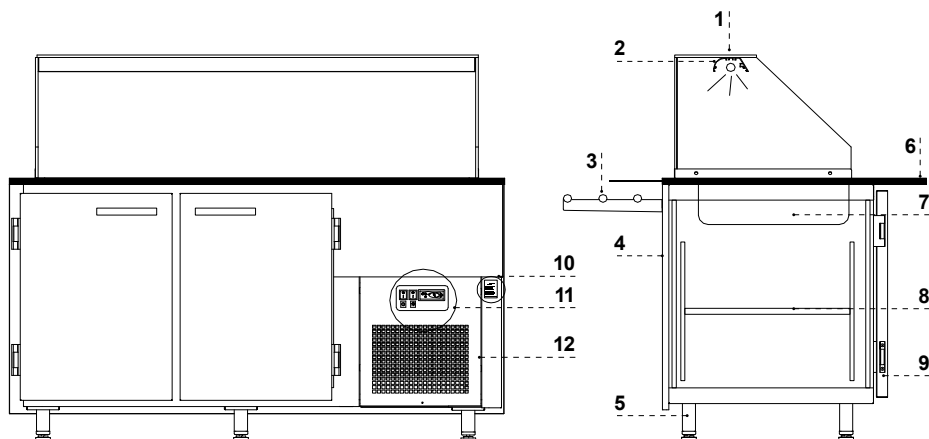


Fig.1 construction of the device

- 1 – Glass shelf
- 2 – Aluminium lamp with backlight
- 3 – Front shelf for the client
- 4 – Front of the display cabinet
- 5 – Device levelling feet
- 6 – Granite top
- 7 – GN gastronomic containers
- 8 – Shelf in the container
- 9 – Door pulled apart
- 10 – Data plate
- 11 – Display cabinet control panel
- 12 – Wind brace (after dismounting access to condenser lamellas)

Fig.2 stationary and moving system

- 1 - Device levelling feet
- 2 - Wheel set (A – moving position; B – blocked position)

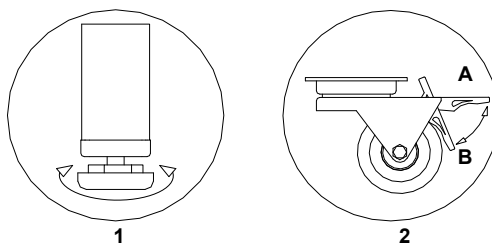
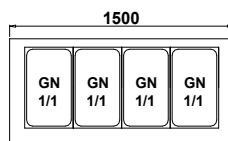
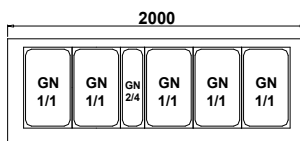


Fig.3 Layout of GN containers

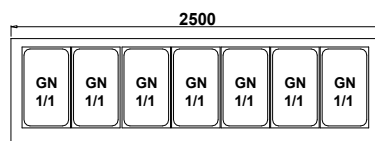
Gastroline 1.5



Gastroline 2.0



Gastroline 2.5



2.3. Technical data

Table 1 Technical data

Name of the device	Rated voltage [V/Hz]	Rated current [A]	Rated lighting power [W]	Electric energy consumption [kWh/24h]	Utility volume [dm ³]	Weight of the device [kg]
Gastroline 1.5	230/50	1,7	36	5,5	386	158
Gastroline 2.0	230/50	1,8	58	5,8	576	205
Gastroline 2.5	230/50	2,2	60	7,0	726	252

3. PREPARING THE DEVICE FOR EXPLOITATION

3.1. Requirements concerning the place of installation

- Verify whether the cross section of feeding conduits is proper for power consumption of the installed device.
- It is forbidden to connect the device by extension rods or dividers.
- The device should be connected to the separate, properly made electric circuit with plug-in socket with protecting pin (according to PBUE /Regulations concerning Electric Equipment Construction/)



The device may be actuated solely after confirmation of the fire protection efficiency with results of measures performed according to binding regulations!

3.2. Connection and actuation

- Unpack the device
- The device should on an even and on a sufficiently hard base, and then level it with the help of feet Fig.2/1 (p.11).
In case of moving devices it is necessary to use wheel blockade in order to immobilise them during exploitation Fig.2/2B (p.11)!
- If the user shall obtain a device partially disassembled to secure it during transportation, perform the following operations:

1. Install shelf handle in perforated frame strips in the container of the display cabinet Fig.4/1 (p.12)
2. Place shelves on the fixed handles Fig.4/3 (p.12)
3. Place GN container according to Fig.3 (p.11)

• The first cleaning of the device should be provide right after unpacking, and before turning it on. The unit should be cleaned with water at a temperature not exceeding 40°C with a neutral detergent. For washing and cleaning the equipment it is prohibited to use products containing chlorine and sodium varieties, which destroy the protective layer and components of the device! Any residue of adhesives or silicone on metal elements should be removed only with extraction naphtha (not applicable to items made of plastic !). Do not use other organic solvents.



When cleaning the unit is prohibited to use water jet. The unit should be cleaned with a wet rag.



After installation of the device at the destination place it should be left to rest for at least 2 hours before turning it on (for devices with built in compressor) to set the level of refrigerant in order to prevent problems with starting up the aggregate.

WARNING: Keep out the cooling circuit from damage!

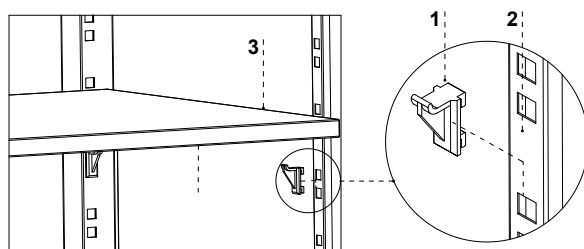


Fig.4 Fixing the shelf in the container

- 1 – Shelf fixing handle
- 2 – Perforated frame strip
- 3 – Shelf in the container

- Place the plug of the connecting cable directly in plug-in socket (it is forbidden to connect the device by means of extension cords or dividers!)
- Turn on the main switch Fig.5/1 (p.13), which activates the thermostat, and then aggregate of the device
- Set the temperature on thermostat control panel Fig.5/3 (p.13) (service details on p.17 or 18)
- Turn on the lighting switch Fig.5/2 (p.13)

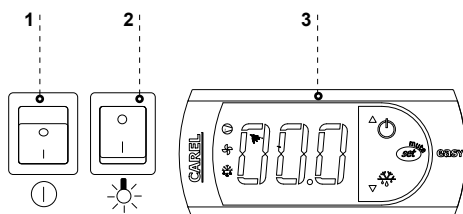


Fig.5 Display cabinet control panel

- 1 – Main switch (turns on/off aggregate of the device)
- 2 – Lighting switch
- 3 – Thermostat panel (service details in Chapter 7 p. 17 or 18)

4. EXPLOITATION

Temperature of the cooled space and aggregate operating cycle may fluctuate. They depend on numerous factors, such as amount and temperature of products placed in the device and temperature of the surroundings.

The device should be placed in a dry and well-ventilated place, ensuring proper air exchange (distance between the wall and the device – min. 10 cm), out of sunlight, kept far from heat sources and devices enforcing air flow (ceiling and portable ventilators, blow-in heaters). The device functions properly in a room, where temperature falls within appropriate climatic class stated on the data plate. The operation of the device may worsen when it shall operate in temperature lower or higher than the stated temperature range.



Remarks and indications

- After transporting the device, wait about 2 hours before its actuation.
- The first filling of cooling space should be performed after its previous cooling to working temperature. This principle should also be observed after longer pause in exploitation.
- Do not place hot products in cooling devices
- Do not block any ventilation holes, which would hamper circulation of the cooled air. It is also necessary to ensure proper airflow around the device (aggregate ventilation holes cannot be covered).
- Keep the condenser clean. Impurities may lead to overheating of the compressor and as a consequence may result in damage of the device, which is not covered by warranty.
- Do not use electric devices inside grocery product storing chamber.
- After closing the door of the device, it is not recommended to open it with force. Negative pressure created inside the device is levelled within 1-2 minutes, which allows easy opening of the door.
- Avoid unnecessary opening of doors and leaving them open for a longer period of time.

4.1. Temperature regulation



Service of "Igloo" and "Carel" thermostat (temperature regulators) is described in chapter 7 (p. 17 and 18)

The basic aim of a thermostat is to control the cooling aggregate to obtain the set temperature within the device and maintain it within the determined temperature ranges. The producer enters all settlements of the temperature regulators required for normal functioning of the device. Before primary actuation the user should control and possibly set the required temperature inside the device on the control panel

Digital display – displays the current temperature inside the



It is forbidden to interfere with systemic parameters of the thermostat, as this can lead to serious consequences, including the damage of the cooling device!

5. MAINTENANCE

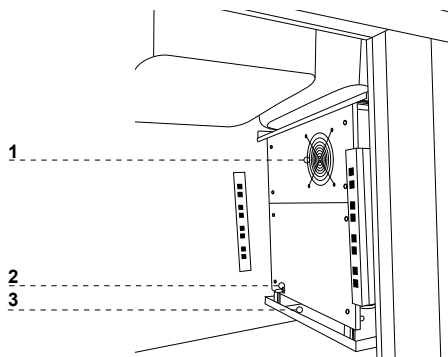
5.1. Cleaning and maintenance

- ⚠ All maintenance services need to be performed after disconnecting the device from power supply!
- ⚠ Protect electric installation against any damage or water spillage
- ⚠ Do not use water stream to clean the device, only a wet cloth
- ⚠ Do not use any sharp objects to remove filth!
- ⚠ Devices equipped with wheels cannot be used on uneven surfaces!

Fig.6 Interior of the storage chamber

- 1 – Ventilator of the evaporator
- 2 – Temperature sensor in the storage chamber
- 3 – Dripping pan of the evaporator

- ⚠ When using the display cabinet, as well as during maintenance works it is essential to care not to damage the temperature sensor located in the cover of the evaporator!



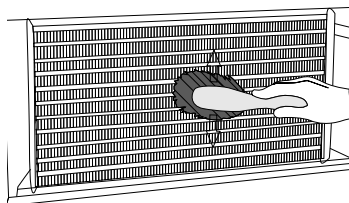
It is recommended to make a break in the exploitation of the device once a month in order to clean its interior, naturally defrost the evaporator, clean the condenser.

- ⚠ Do not use mechanical agents in order to fasten the defrosting process!

It is essential to keep the condenser of the device clean. Dirt may hinder the heat exchange, causing mainly increase in electric energy consumption and may cause damage of aggregate compressor.

In order to clean the condenser it is necessary to pull the wind brace out of catch lifting it up. Clean condenser lamellas with help of soft brush or paint brush. If the condenser is extremely dirty (blocking of lamellas) it is indicated to use vacuum cleaner or compressed nitrogen to suck / blow the dirt from between lamellas.

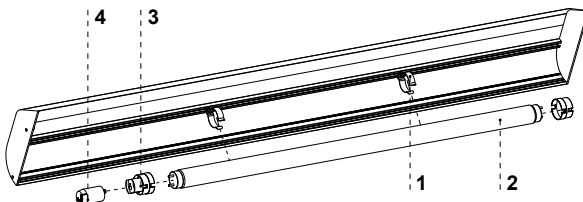
Fig.7 Cleaning the condenser



- ⚠ The producer shall not be held responsible for damages of the condenser aggregate resulting from non-observance of condenser cleanliness!

Fig.8 Changing the fluorescent lamp

- 1 – Fluorescent lamp handle
- 2 – Fluorescent lamp
- 3 – Casing of fluorescent lamp and starting switch
- 4 – Starting switch of fluorescent lamp



Door seal should be cleaned solely with clean water without any cleansing agents and it should be thoroughly dried. **The seal cannot get into contact with oily substances or grease!** Control whether door close properly during maintenance procedures.

Test: place a sheet of paper between the seal and the casing and close the door. The paper should pose a tangible resistance during an attempt to pull it out.



Elements of device can corrode when improper used and maintenance. To avoid that please follow the rules:

- Do not allow contact of the surface of the device with substances containing chlorine and / or baking soda in different varieties, which destroy the protective layer and components of the device (also includes various stainless steel)



During maintenance services it is necessary to pay attention not to damage the data plate of the device Fig.9 (p.16), which contains significant information for servicing organs and waste removal companies.

6. SERVICE

6.1. Fault identification and repair

In case of any difficulties during actuation of the device or during its exploitation, please return to these chapters in this manual, which explain the performed operation. This aims to ensure that the device is properly operated. If you still experience difficulties, the following hints will help you solve the problem.

The device is not working... – Make sure that:

- The device is connected to the supply network
- Voltage and frequency in the network are compliant with those recommended by the producer, 230V/50Hz
- The main switch is turned on
- Thermostat is turned on (This concerns the Igloo thermostat – If only two spots are visible on the display – turn on the thermostat)

The device is operating, but the lighting is off...– Make sure that:

- Lighting switch is turned on
- Fluorescent lamp or starting switch of the device are not burnt

Water leakage from below the device or into the inside of the chamber:

- Check whether the device is properly levelled
- Check the patency of outflow pipes
- Check whether there is not too much ice in the pan and on the condenser – defrost when necessary

The device does not reach the proper temperature, the lighting is on...– Make sure that:

- The main switch is on
- Temperature setting on the thermostat is properly set
- Thermostat works properly
- The condenser is clean, if necessary – clean the condenser
- Ambient temperature does not exceed 25°C
- Enough time has passed for products to be cooled
- Ventilation holes of the device are not blocked
- Doors of the device close in a proper way and that the seal adjoins the frame of the device

(This concerns the “IGLOO” thermostat) thermostat displays C0 or C1 or C2 instead of displaying temperature: This situation shall occur, when one of temperature regulation sensors has been destroyed. The following messages may be displayed in such case:

- C0 – temperature sensors inside the chamber are damaged – call authorized service
- C1 – failure of evaporator sensor - call authorized service
- C2 – failure of condenser alarm sensors (or failure of second evaporator sensor) – call authorized service

(This concerns the “CAREL” thermostat) Thermostat displays E0 or E1 or L0 or HI or EE or Ed or DF instead of temperature:

- E0 – failure of temperature sensor inside the chamber – call authorized service
- E1 – failure of evaporator sensor – call authorized service
- L0 – low temperature alarm (lower than temperature range set within the device – call authorized service
- HI – high temperature alarm – call authorized service
- EE – internal defect of the regulator – call authorized service
- Ed – max. defrosting time exceeded – call authorized service
- DF – defrosting in progress (this is not an alarm signal) – call authorized service

(This concerns the “IGLOO” thermostat) The device is working, sound signalling is activated...

Make sure that:

- The condenser is clean, if necessary – clean the condenser
- Condenser ventilator is working properly
- Ambient temperature does not exceed 25°C

The device is working too loud...– Make sure that:

- The device is standing stably
- Furniture adjoining the device do not vibrate when the cooling aggregate compressor is working



Noises made by the operating device are a normal phenomenon. The devices are equipped with ventilators, engines and compressors, which turn on and off automatically. **Each compressor makes certain noises when operating. These sounds are made by the aggregate engine and by cooling agent flowing through the circuit. This phenomenon constitutes a technical feature of cooling devices and it does not signify their faulty work.**



Steam precipitation on glasses of the device is a normal phenomenon in case of high relative air humidity exceeding 60% and does not require calling the service!

6.2. Service

If after checking points described in chapter 6.1 „Fault identification and repair” the device still does not work properly, please contact Technical Service of the Igloo company, stating the data from the data plate Fig.9 (p.16):



- Serial number (NS)
- Production date
- Type (name of the device) and
- Date when the device was purchased
- Description of the problem
- Your exact address and telephone number (with the code number)

Data plate is placed at the back of the device, in the right upper corner below the top Fig.1/10 (p.11)



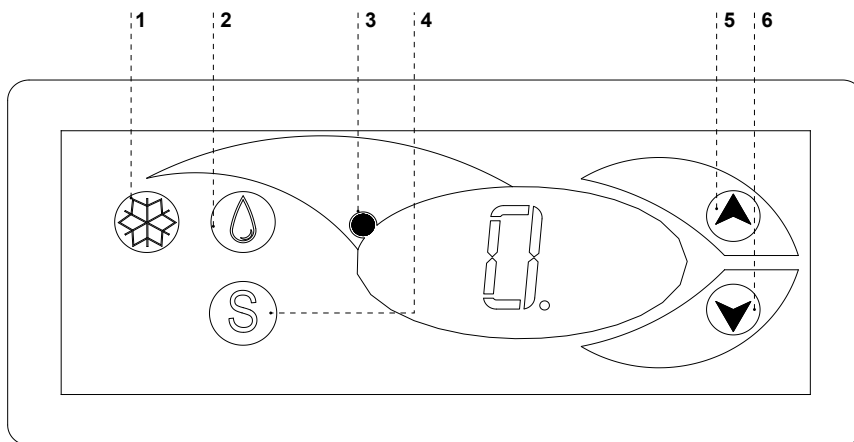
The above figure shows a demonstrative data plate and the data stated on the plate are exemplary data, which are not related with “Gastrolino” device!

Fig.9 Data plate

7. THERMOSTAT SERVICE

7.1. „IGLOO” thermostat

Fig.10 „Igloo” thermostat control panel



- 1 – Cooling on/off switch
- 2 – Manual defrosting switch
- 3 – Aggregate and defrosting operating control diode
- 4 – Temperature monitoring switch on defrosting sensor
- 5 – Temperature regulation switch (increase)
- 6 – Temperature regulation switch (decrease)

Verification of adjusted temperature (inside the device) – By pressing “▲” or “▼” switch once we can verify the adjusted temperature. The adjusted temperature shall be shown on the display with a visible red blinking spot (diode). The preview shall finish automatically after about 3 seconds.

Lowering (or increasing) the temperature – press “▼” (or “▲”) switch and the adjusted temperature shall be visible on control panel. By pressing the “▼” switch we decrease the temperature to the desired value. The preview shall finish automatically after about 3 seconds.

Manual defrosting – switch No. 2 enables to initiate the defrosting cycle at any moment when the device is working (regardless of the automatic defrosting function); the switch shall not operate when the temperature is higher than the final defrosting temperature.

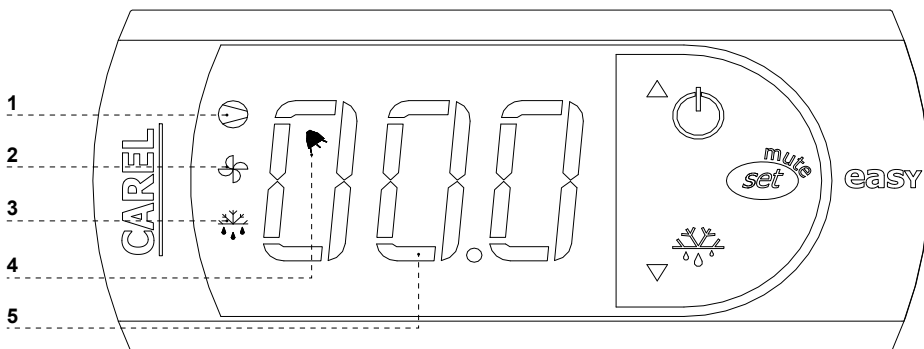


The user should switch on/ switch off the aggregate only by means of the main switch of the device, and not by means of the direct switch on thermostat control panel. Switching on the main switch shall automatically initiate the thermostat!

* Read more on www.igloo.pl

7.2. „CAREL” thermostat

Fig.11 „Carel” thermostat control panel



WHAT DO DIODES ON CONTROL PANEL SIGNIFY

Diode 1 is on - Compressor: the symbol is visible when the compressor is working. It is blinking when compressor actuation is delayed by security procedure. It blinks in the following cycle: two blinks – pause, when the constant working mode is activated.

Diode 2 is on - Ventilator: the symbol is visible when evaporator ventilators are turned on. It blinks when the actuation of the ventilators is delayed by external disengagement or when another procedure is in progress.

Diode 3 is on - Defrosting: the symbol is visible when the defrosting function is activated. It blinks when the actuation is delayed by external disengagement or when another procedure is in progress.

Diode 4 is on - Alarm: the symbol is visible when the alarm is activated.

5 – current temperature inside the device is displayed (decimal places displayed after the comma)

SETTING THE DESIRED TEMPERATURE

- press for 1 second  leading value shall be displayed on the screen;
- increase or decrease the leading value by means of  and , switches, until the desired value shall be obtained;
- press  once again in order to confirm the new value of the setting point;

MANUAL INPUT OF THE DEFROSTING CYCLE

Defrosting shall be realised in an automatic mode. It is possible to force defrosting at any moment by pressing and holding the  switch for minimum 5 seconds. Diode No. 1 shall blink during manual defrosting.

* Read more on www.alfaco.pl

NOTE: IN CASE OF NOT OBSERVING THE PRINCIPLES ON CONNECTING AND USING THE DEVICE INCLUDED IN THIS MANUAL, THE PRODUCER SHALL RESERVE THE RIGHT TO RECEDE FROM OBLIGATIONS OF THE GUARANTOR!!!

Information included in this document may be altered by "IGLOO" without noticing the user.

Copying the present manual without the consent of the producer is forbidden.

Images and drawings are of demonstrative character and may differ from the purchased device.